



State of New Hampshire
DEPARTMENT OF ENVIRONMENTAL SERVICES

6 Hazen Drive, P.O. Box 95, Concord, NH 03302-0095

(603) 271-3406 FAX (603) 271-7894

May 24, 2002

Letter of Deficiency

DAM #063.17



Mr. Bill Carter
Redfield Estates Assoc.
P.O. Box 311
East Derry, NH 03041

RE: Redfield Estates Pond Dam, Derry

Dear Mr. Carter:

The Department of Environmental Services, Dam Bureau (DES) consistently strives to enhance the safety of dams in New Hampshire through its dam safety program. One of the many instruments that plays a part in reaching this goal is our inspection program. DES is forwarding this correspondence to you to advise you that in accordance with RSA 482:12 and Env-Wr 502.02, an inspection of the subject dam was conducted on January 3, 2002. During this visual inspection and/or file review, the following deficiencies were observed:

1. At the time of the inspection, the dam was being operated such that there is only 1 foot of freeboard from the top of the stoplogs to the top of the dam. Based on the hydrologic analyses, the pond water surface elevation needs to be maintained 1.80 feet below the top of the dam during the entire year to safely pass the design event with 1 foot of freeboard;
2. There is approximately 2.5 feet of sediment on the upstream face of the stoplogs;
3. The left embankment is poorly defined and has severe erosion on the upstream face, crest and downstream face;
4. There is soil erosion on the upstream face of the right embankment;
5. There is no erosion protection along the approach to the spillway on both the left and right sides;
6. There is soil erosion at the downstream end of the left side stoplog bay training wall;
7. The stoplogs are deteriorated and appear that they will leak substantially when the sediment on the upstream face is removed;
8. There are trees located on the right embankment located approximately 15 feet to the right of the stoplog bay; and
9. Evaluate the existing operations and maintenance plan (O&M) and update as necessary.

DES believes that the above deficiencies can be corrected by performing the following items by the indicated schedule:

July 1, 2002:

1. Immediately lower the pond and maintain it at a level approximately 1.8 feet below the top of the dam which will allow the design event to pass with 1 foot of freeboard;

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Remove the sediment on the upstream face of the stoplogs;

3. Re-grade the left embankment maintaining minimum slopes of 2.5:1 and a crest width of 6 feet and establish a good grass cover;
4. Repair the erosion on the upstream face of the right embankment and establish a good grass cover;
5. Install erosion protection at the approach to the stoplog bay;
6. Repair the erosion located at the downstream end of the left stoplog bay training wall;
7. Replace the stoplogs;
8. Remove the trees located on the right embankment approximately 15 feet to the right of the stoplog bay; and
9. Update and submit the operations and maintenance plan. At a minimum the plan will need to address the removal of the additional stoplog.

Due to the time that has lapsed as well as additional deficiencies observed as a result of the January 3, 2002 inspection, DES will be officially closing out the 1996 LOD. Enclosed is a copy for your reference. This LOD will replace the 1996 LOD. It is our hope that the additional deficiencies as well as the outstanding deficiencies will be addressed within the schedule indicated above.

DES is requesting that you complete and submit the attached "Intent to Complete Repairs" form, within 30 days of receipt of this letter, that will provide for correction of the identified deficiencies by the date(s) indicated above. If you believe changes to the items of work or dates are necessary, please make the changes directly on the form and provide a brief explanation. We have enclosed a self addressed stamped envelope for you to return this form.

Our intent in sending you this correspondence is to make you aware of items that DES believes warrant your attention to insure the continued safe operation of your dam. It is our hope that, through the submittal of the attached form and a commitment to keeping a well-maintained dam, you will voluntarily comply with the requested items of work. If we do not receive the intent form or a similarly adequate written reply, we will assume that you are in agreement with our findings and recommendations and DES will carry out follow-up inspections accordingly.

If you have any questions or comments regarding this Letter of Deficiency or would like to be present at future inspections, please contact me at 271-3406, or write to the Water Division at the address listed on the top of the previous page.

Sincerely,

COPY
Jeffrey M. Blaney
Dam Safety Engineer

Attachments DB8, DB13, Copy of the 1997 LOD

cc: Gretchen Rule
Town of Derry

Certified # 7099 3400 0002 9773 7634